



MAY **20** 2013

Gerardo C. Rios, Chief Permits Office Air Division U.S. EPA - Region IX 75 Hawthorne St San Francisco, CA 94105

Re:

**Notice of Minor Title V Permit Modification** 

District Facility # S-1703 Project # S-1121423

Dear Mr. Rios:

Enclosed for you to review is an application for minor Title V permit modification for the facility identified above. Macpherson Oil Company is proposing a Title V minor permit modification to incorporate the recently issued Authorities to Construct S-1703-144-13, '-209-0, and '-209-1 into the Title V operating permit. ATCs S-1703-144-13 and '-209-0 authorized installation of one 6,200 BBL fixed roof organic liquid storage tank and connecting the tank to the vapor control system listed on tank permit S-1703-144. ATC S-1703-209 allowed the addition of tank interior cleaning, preventive inspection and maintenance conditions, and allowed the vapor control system to be shut down during electrical power curtailment.

Enclosed is the engineering evaluation with the following attachments: proposed modified Title V permit, recently issued Authorities to Construct S-1703-144-13, '-209-0, and '-209-1, emission increases, application, and previous Title V permit. Please submit your written comments on this project within the 45-day comment period that begins on the date you receive this letter.

Thank you for your cooperation in this matter. If you have any questions, please contact Mr. Leonard Scandura at (661) 392-5500.

Sincerely,

∕David Warner

**Director of Permit Services** 

**Enclosures** 

Seyed Sadredin

Executive Director/Air Pollution Control Officer

Tel: (559) 230-6000 FAX: (559) 230-6061





MAY 20 2013

Jody Butler Macpherson Oil Company PO Box 5368 Bakersfield, CA 93388

Re:

**Notice of Minor Title V Permit Modification** 

District Facility # S-1703 Project # S-1121423

Dear Mr. Butler:

Enclosed is the District's analysis of your application for minor Title V permit modification for the facility identified above. You proposed a Title V minor permit modification to incorporate recently issued Authorities to Construct S-1703-144-13, '-209-0, and '-209-1 into the Title V operating permit. ATCs S-1703-144-13 and '-209-0 authorized installation of one 6,200 BBL fixed roof organic liquid storage tank and connecting the tank to the vapor control system listed on tank permit S-1703-144. ATC S-1703-209 allowed the addition of tank interior cleaning, preventive inspection and maintenance conditions, and allowed the vapor control system to be shut down during electrical power curtailment.

Enclosed is the engineering evaluation with the following attachments: proposed modified Title V permit, recently issued Authorities to Construct S-1703-144-13, '-209-0, and '-209-1, emission increases, application, and previous Title V permit. This project will be subject to a 45-day EPA commenting period prior to the District taking final action.

Thank you for your cooperation in this matter. If you have any questions, please contact Mr. Leonard Scandura at (661) 392-5500.

Sincerely,

**Director of Permit Services** 

**Enclosures** 

Seved Sadredin Executive Director/Air Pollution Control Officer

#### TITLE V APPLICATION REVIEW

Minor Modification
Project #: S-1121423

Engineer: Steve Davidson Date: May 10, 2012

RWK 5-15-13

Facility Number: S-1703

Facility Name: Macpherson Oil Company

Mailing Address: PO Box 5368

Bakersfield, CA 93388

Contact Name: Jody Butler

Phone: (661) 393-3204 ext 103

Responsible Official: Jody Butler

Title: Operations Superintendent

#### I. PROPOSAL

Macpherson Oil Company (Macpherson) is proposing a Title V minor permit modification to incorporate Authority to Constructs (ATC) # S-1703-144-13, '-209-0 and '-209-1 into Macpherson's Title V permit. ATCs # S-1703-144-13 and '-209-0 authorized the installation of one 6,200 BBL fixed roof organic liquid storage tank (S-1703-209-0) and connecting the tank to the vapor control system listed on tank permit S-1703-144. In Project S-1122815, ATC S-1703-290-1 allowed the addition of tank interior cleaning, preventive inspection and maintenance conditions, and allow the vapor control system to be shut down during electrical power curtailment during power flex alerts.

The purpose of this evaluation is to identify all applicable requirements, determine if the facility will comply with the applicable requirements and to provide the legal and factual basis for the proposed revisions.

#### II. FACILITY LOCATION

The tank is located in Macpherson's Kern County Heavy Oil Central Stationary Source in the SE/4 of Section 18, Township 28S, Range 29E.

#### III. EQUIPMENT DESCRIPTION

S-1703-144-16: 2,000 BBL FIXED ROOF PETROLEUM STORAGE TANK #T-240

Macpherson Oil Facility: S-1703 Project: S-1121423

SERVED BY VAPOR CONTROL SYSTEM SHARED WITH S-1703-145, '-146, '-150, '-152, '-195, '-197, AND '-209 VENTING TO VAPOR CONTROL SYSTEM PERMITTED UNDER S-1703-143 AND/OR DIRECTLY TO STEAM GENERATORS S-1703-157, '-158, '-159, '-160, '-161, AND '-162 FOR INCINERATION

S-1703-209-0: 6,200 BBL WASH TANK CONNECTED TO VAPOR RECOVERY SYSTEM LISTED ON '-144

#### IV. SCOPE OF EPA AND PUBLIC REVIEW

This change to the Title V permits is considered to be a minor modification and, as such, requires no public review.

#### V. APPLICABLE REQUIREMENTS

District Rule 2520, Federally Mandated Operating Permits (Adopted June 21, 2001)

#### VI. DESCRIPTION OF PROPOSED MODIFICATIONS

In project S-1120295, Macpherson Oil Company applied for an Authority to Construct (ATC) permit authorizing the installation of one 6,200 BBL fixed roof organic liquid storage tank (S-1703-209-0) and connection it to the vapor control system listed on tank S-1703-144.

There were no changes to S-1703-144's permit conditions associated with this Minor Modification.

ATC S-1703-209-0 is a new permit unit; therefore, there is no existing Title V PTO that it will be modifying.

In project S-1122815, ATC S-1703-209-1 modified existing ATC S-1703-209-0 and allowed the tank, when constructed, to be cleaned according to the District's Voluntary Inspection and Maintenance Program and the vapor control system to be shut down during electrical power curtailment to the field. The ATC conditions will be carried over to the proposed PTO with the following exception, which will be removed because it has already been satisfied:

• Permit S-1703-150 shall be canceled upon implementation of this permit. [District Rule 2201] Y].

Macpherson Oil Facility: S-1703

Project: S-1121423

#### VII. COMPLIANCE

In accordance with Rule 2520, 3.20, these modifications:

- 1. Do not violate requirements of any applicable federally enforceable local or federal requirement;
- 2. Do not relax monitoring, reporting, or recordkeeping requirements in the permit and are not significant changes in existing monitoring permit terms or conditions;
- 3. Do not require or change a case-by-case determination of an emission limitation or other standard, or a source-specific determination for temporary sources of ambient impacts, or a visibility or increment analysis;
- 4. Do not seek to establish or change a permit term or condition for which there is no corresponding underlying applicable requirement and that the source has assumed to avoid an applicable requirement to which the source would otherwise be subject. Such terms and conditions include:
  - A federally enforceable emission cap assumed to avoid classification as a modification under any provisions of Title I of the Federal Clean Air Act; and
  - An alternative emissions limit approved pursuant to regulations promulgated under section 112(i)(5) of the Federal Clean Air Act; and
- Are not Title I modifications as defined in District Rule 2520 or modifications as defined in section 111 or 112 of the Federal Clean Air Act; and
- 6. Do not seek to consolidate overlapping applicable requirements.

Because these permit revisions meet all the above criteria, this is a Minor Modification.

In accordance with Rule 2520, the application meets the procedural requirements of section 11.4 by including;

- 1. A description of the change, the emissions resulting from the change, and any new applicable requirements that will apply if the change occurs;
- 2. The source's suggested draft permit; and
- 3. Certification by a responsible official that the proposed modification meets the criteria for use of minor permit modification procedures and a request that such procedures be used.

Macpherson Oil Facility: S-1703 Project: S-1121423

### **VIII. ATTACHMENTS**

- Proposed Modified Title V Operating Permit Authority to Construct A.
- B.
- Emissions Increases C.
- D. Application
- Previous Title V Operating Permit E.

Macpherson Oil Facility: S-1703 Project: S-1121423

## ATTACHMENT A

Proposed Modified Title V Operating Permit

## San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-1703-144-16

RANGE: 29E **SECTION:** 18 **TOWNSHIP:** 28S

**EQUIPMENT DESCRIPTION:** 

2,000 BBL FIXED ROOF PETROLEUM STORAGE TANK #T-240 SERVED BY VAPOR CONTROL SYSTEM SHARED WITH S-1703-145, '-146, '-150, '-152, '-195, '-197, AND '-209 VENTING TO VAPOR CONTROL SYSTEM PERMITTED UNDER S-1703-143 AND/OR DIRECTLY TO STEAM GENERATORS S-1703-157, '-158, '-159, '-160, '-161, AND '-162 FOR INCINERATION

## PERMIT UNIT REQUIREMENTS

- The operator shall ensure that the vapor recovery system is functional and is operating as designed at all times with the exception of power curtailment events. [District Rule 2201] Federally Enforceable Through Title V Permit
- This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all 2. storage conditions. [District Rule 4623] Federally Enforceable Through Title V Permit
- Maximum VOC content of vapor in the tank vapor control system shall not exceed 10% by weight. [District Rule 3. 2201] Federally Enforceable Through Title V Permit
- The tank vapors may be introduced into TEOR system S-1703-143 at either the main trunk line, or immediately upstream of the H2S scrubber system. [District Rule 2201] Federally Enforceable Through Title V Permit
- The tank shall be equipped with a vapor control system consisting of a closed vent system that collects all VOCs from the storage tank, and a VOC control device. The vapor control system shall be APCO-approved and maintained to prevent leaks. The vapors shall be incinerated to reduce the inlet VOC emissions by at least 99% by weight as determined by the test method specified in Section 6.4 of Rule 4623 in any of the following steam generators: S-1703-157, -158, -159, -160, -161, or -162; or vapors shall be injected into DOGGR approved wells listed on permit S-1703-143. [District Rule 2201] Federally Enforceable Through Title V Permit
- Upon detection of any leaking components (having a gas leak >10,000 ppmv, measured in accordance with EPA Method 21 by a portable hydrocarbon detection instrument that is calibrated with methane) operator shall: (a) Eliminate or minimize the leak within 8 hours after detection. (b) If the leak cannot be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; and eliminate the leak within 48 hours after detection. (c) In no event shall the total time to minimize and eliminate the leak exceed 56 hours after detection. [District Rule 2201] Federally Enforceable Through Title V Permit
- If any of the tank components are found to be leaking, operator shall immediately affix a tag and maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rule 2201] Federally Enforceable Through Title V Permit
- During a District inspection, any tank, gauge hatch, sampling device, or other component that is not leak free will not be a violation of this permit provided the facility records, tags, and repairs the leak in accordance with the requirements of this permit. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS GONTINUE ON NEXT PAGE have part of the Facility-wide Permit to Operate. These terms and conditions

Facility Name: MACPHERSON OIL COMPANY

HEAVY OIL CENTRAL STATIONARY SOURCE, CA

Location: HEAVY OIL CENTI S-1703-144-16: May 15 2013 10:35AM -- DAVIDSOS

- 9. All vessel and vapor control system piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated to methane, to ensure compliance with the provisions of this permit. If any of the vessel components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no vessel components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 ft above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired upon detection. [District Rule 2201] Federally Enforceable Through Title V Permit
- 10. Permittee shall notify the APCO in writing at least three (3) days prior to performing tank degassing and interior tank cleaning activities. Written notification shall include the following: 1) the Permit to Operate number and physical location of the tank being degassed, 2) the date and time that tank degassing and cleaning activities will begin, 3) the degassing method, as allowed in this permit, to be used, 4) the method to be used to clean the tank, including any solvents to be used, and 5) the method to be used to dispose of any removed sludge, including methods that will be used to control emissions from the receiving vessel and emissions during transport. [District Rule 2080] Federally Enforceable Through Title V Permit
- 11. This tank shall be degassed before commencing interior cleaning by following one of the following options: 1) exhausting VOCs contained in the tank vapor space to an APCO-approved vapor recovery system until the organic vapor concentration is 5,000 ppmv or less, or is 10 percent or less of the lower explosion limit (LEL), whichever is less, or 2) by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable liquid until 90 percent or more of the maximum operating level of the tank is filled. Suitable liquids are organic liquids having a TVP of less than 0.5 psia, water, clean produced water, or produced water derived from crude oil having a TVP less than 0.5 psia, or 3) by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable gas. Degassing shall continue until the operator has achieved a vapor displacement equivalent to at least 2.3 times the tank capacity. Suitable gases are air, nitrogen, carbon dioxide, or natural gas containing less than 10 percent VOC by weight. [District Rule 2080] Federally Enforceable Through Title V Permit
- 12. During tank degassing, the operator shall discharge or displace organic vapors contained in the tank vapor space to an APCO-approved vapor recovery system. [District Rule 2080] Federally Enforceable Through Title V Permit
- 13. To facilitate connection to an external APCO-approved recovery system, a suitable tank fitting, such as a manway, may be temporarily removed for a period of time not to exceed 1 hour. [District Rule 2080] Federally Enforceable Through Title V Permit
- 14. While performing tank cleaning activities, operators may only use the following cleaning agents: diesel, solvents with an initial boiling point of greater than 302 degrees F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams of VOC per liter or less. [District Rule 2080] Federally Enforceable Through Title V Permit
- 15. Steam cleaning shall only be allowed at locations where wastewater treatment facilities are limited, or during the months of December through March. [District Rule 2080] Federally Enforceable Through Title V Permit
- 16. Before disposal of VOC vapors by well injection, the applicant shall obtain written notification from DOGGR that the wells are approvable for injection. [District Rule 2201] Federally Enforceable Through Title V Permit
- 17. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District Rule 4623] Federally Enforceable Through Title V Permit
- 18. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.

Facility Name: MACPHERSON OIL COMPANY

Location: HEAVY OIL CENTRAL STATIONARY SOURCE\CA-S-1703-144-16: May 15 2013 10.35AM – DAVIDSOS

- 19. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623] Federally Enforceable Through Title V Permit
- 20. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit
- 21. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623] Federally Enforceable Through Title V Permit
- 22. Operator shall conduct quarterly gas sampling after TVR compressor (prior to connection to any other vapor control system) and at either the first line tank or at any secondary tank which is heated above ambient temperature. If gas samples are less than 10% VOC by weight for 8 consecutive quarterly samplings, sampling frequency shall only be required annually and whenever there is a change in source or type of petroleum processed. Samples shall be collected during periods of normal operation, and not be within 48 hours after routine maintenance or repair. [District Rule 2201] Federally Enforceable Through Title V Permit
- 23. VOC content of gas shall be measured using ASTM D-1945, EPA Method 18 referenced as methane, or equivalent test method with prior District approval. [District Rule 2201] Federally Enforceable Through Title V Permit
- 24. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. [District Rule 2201] Federally Enforceable Through Title V Permit
- 25. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired. [District Rule 2201] Federally Enforceable Through Title V Permit
- 26. Permittee shall maintain records of the VOC content of vapor in the tank vapor control system, including date and test results. [District Rule 2201] Federally Enforceable Through Title V Permit
- 27. The permittee shall maintain a written log of the date and duration of each power curtailment event. [District Rule 2201] Federally Enforceable Through Title V Permit
- 28. The permittee shall keep written documentation from the power supplier indicating the date, and duration of the curtailment in addition to the beginning and end times. [District Rule 2201] Federally Enforceable Through Title V Permit
- 29. All records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.

Facility Name: MACPHERSON OIL COMPANY

Location: HEAVY OIL CENTRAL STATIONARY SOURCE, CA 8-1703-144-16: May 15 2013 10.35AM – DAVIDSOS

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-1703-209-2

EXPIRATION DATE: P7/31/2016

**EQUIPMENT DESCRIPTION:** 

6,200 BBL WASH TANK CONNECTED TO VAPOR RECOVERY SYSTEM LISTED ON '-144

### PERMIT UNIT REQUIREMENTS

- 1. The tank shall be equipped with a vapor control system consisting of a closed vent system that collects all VOCs from the storage tank, and a VOC control device. [District Rule 2201] Federally Enforceable Through Title V Permit
- 2. Maximum VOC content of vapor in the tank vapor control system shall not exceed 10% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
- 3. VOC content of gas shall be measured using ASTM D-1945, EPA Method 18 referenced as methane, or equivalent test method with prior District approval. [District Rule 2201] Federally Enforceable Through Title V Permit
- 4. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623] Federally Enforceable Through Title V Permit
- 5. Operator shall conduct quarterly gas sampling after TVR compressor (prior to connection to any other vapor control system) and at either the first line tank or at any secondary tank which is heated above ambient temperature. If gas samples are less than 10% VOC by weight for 8 consecutive quarterly samplings, sampling frequency shall only be required annually and whenever there is a change in source or type of petroleum processed. Samples shall be collected during periods of normal operation, and not be within 48 hours after routine maintenance or repair. [District Rule 2201] Federally Enforceable Through Title V Permit
- 6. All vessel and vapor control system piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated to methane, to ensure compliance with the provisions of this permit. If any of the vessel components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no vessel components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 ft above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired upon detection. [District Rule 2201] Federally Enforceable Through Title V Permit
- 7. Upon detection of any leaking components (having a gas leak >10,000 ppmv, measured in accordance with EPA Method 21 by a portable hydrocarbon detection instrument that is calibrated with methane) operator shall: (a) Eliminate or minimize the leak within 8 hours after detection. (b) If the leak cannot be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; and eliminate the leak within 48 hours after detection. (c) In no event shall the total time to minimize and eliminate the leak exceed 56 hours after detection. [District Rule 2201] Federally Enforceable Through Title V Permit
- 8. If any of the tank components are found to be leaking, operator shall immediately affix a tag and maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.

Facility Name: MACPHERSON OIL COMPANY
Location: HEAVY OIL CENTRAL STATIONARY SOURCE,CA

S-1703-209-2 : May 10 2013 8:02AM -- DAVIDSOS

- During a District inspection, any tank, gauge hatch, sampling device, or other component that is not leak free will not be a violation of this permit provided the facility records, tags, and repairs the leak in accordance with the requirements of this permit. [District Rule 2201] Federally Enforceable Through Title V Permit
- 10. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District Rule 4623] Federally Enforceable Through Title V Permit
- 11. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623] Federally Enforceable Through Title V Permit
- 12. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623] Federally Enforceable Through Title V Permit
- 13. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit
- 14. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623] Federally Enforceable Through Title V Permit
- 15. The permittee shall keep accurate records of each organic liquid stored in the tank including TVP and API gravity. [District Rule 4623] Federally Enforceable Through Title V Permit
- 16. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired. [District Rule 2201] Federally Enforceable Through Title V Permit
- 17. Permittee shall maintain records of the VOC content of vapor in the tank vapor control system, including date and test results. [District Rule 2201] Federally Enforceable Through Title V Permit
- 18. All records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2080]

These terms and conditions are of the Facility-wide Permit to Operate.

Facility Name: MACPHERSON OIL COMPANY
Location: HEAVY OIL CENTRAL STATIONARY SOURCE OF S-1703-208-2: May 10 2013 8:02AM - DAVIDSOS

## **ATTACHMENT B**

**Authority to Construct** 





## **AUTHORITY TO CONSTRUCT**

PERMIT NO: S-1703-144-13

**ISSUANCE DATE: 03/07/2012** 

LEGAL OWNER OR OPERATOR: MACPHERSON OIL COMPANY

**MAILING ADDRESS:** 

PO BOX 5368

BAKERSFIELD, CA 93388

LOCATION:

HEAVY OIL CENTRAL STATIONARY SOURCE

CA

SECTION: 18 TOWNSHIP: 28S

RANGE: 29E

**EQUIPMENT DESCRIPTION:** 

MODIFICATION OF 2,000 BBL FIXED ROOF PETROLEUM STORAGE TANK #T-240 SERVED BY VAPOR CONTROL SYSTEM SHARED WITH S-1703-145, '-146, '-150, '-152, AND '-195 VENTING TO VAPOR CONTROL SYSTEM PERMITTED UNDER S-1703-143 AND/OR DIRECTLY TO STEAM GENERATORS S-1703-157, '-158, '-159, '-160, '-161, AND '-162 FOR INCINERATION: CONNECT TANK '-209 TO VAPOR RECOVERY SYSTEM

## **CONDITIONS**

- The facility shall submit an application to modify the Title V permit in accordance with the timeframes and procedures of District Rule 2520. [District Rule 2520] Federally Enforceable Through Title V Permit
- S-1703-144-12 shall be implemented prior to or concurrently with this ATC. [District Rule 2201]
- The tank shall be equipped with a vapor control system consisting of a closed vent system that collects all VOCs from the storage tank, and a VOC control device. The vapor control system shall be APCO-approved and maintained to prevent leaks. The vapors shall be incinerated to reduce the inlet VOC emissions by at least 99% by weight as determined by the test method specified in Section 6.4 of Rule 4623 in any of the following steam generators: S-1703-157, -158, -159, -160, or -161; or vapors shall be injected into DOGGR approved wells listed on permit S-1703-143. [District Rule 2201] Federally Enforceable Through Title V Permit
- Upon detection of any leaking components (having a gas leak >10,000 ppmv, measured in accordance with EPA Method 21 by a portable hydrocarbon detection instrument that is calibrated with methane) operator shall: (a) Eliminate or minimize the leak within 8 hours after detection. (b) If the leak cannot be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; and eliminate the leak within 48 hours after detection. (c) In no event shall the total time to minimize and eliminate the leak exceed 56 hours after detection. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

VID WARNER, Director of Permit Services

- 5. If any of the tank components are found to be leaking, operator shall immediately affix a tag and maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rule 2201] Federally Enforceable Through Title V Permit
- 6. During a District inspection, any tank, gauge hatch, sampling device, or other component that is not leak free will not be a violation of this permit provided the facility records, tags, and repairs the leak in accordance with the requirements of this permit. [District Rule 2201] Federally Enforceable Through Title V Permit
- 7. All vessel and vapor control system piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated to methane, to ensure compliance with the provisions of this permit. If any of the vessel components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no vessel components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 ft above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired upon detection. [District Rule 2201] Federally Enforceable Through Title V Permit
- 8. Before disposal of VOC vapors by well injection, the applicant shall shall obtain written notification from DOGGR that the wells are approvable for injection. [District Rule 2201] Federally Enforceable Through Title V Permit
- 9. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623] Federally Enforceable Through Title V Permit
- 10. Maximum VOC content of vapor in the tank vapor control system shall not exceed 10% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
- 11. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District Rule 4623] Federally Enforceable Through Title V Permit
- 12. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623] Federally Enforceable Through Title V Permit
- 13. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623] Federally Enforceable Through Title V Permit
- 14. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit
- 15. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623] Federally Enforceable Through Title V Permit
- 16. The permittee shall keep accurate records of each organic liquid stored in the tank including TVP and API gravity. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit
- 17. Operator shall conduct quarterly gas sampling after TVR compressor (prior to connection to any other vapor control system) and at either the first line tank or at any secondary tank which is heated above ambient temperature. If gas samples are less than 10% VOC by weight for 8 consecutive quarterly samplings, sampling frequency shall only be required annually and whenever there is a change in source or type of petroleum processed. Samples shall be collected during periods of normal operation, and not be within 48 hours after routine maintenance or repair. [District Rule 2201] Federally Enforceable Through Title V Permit
- 18. VOC content of gas shall be measured using ASTM D-1945, EPA Method 18 referenced as methane, or equivalent test method with prior District approval. [District Rule 2201] Federally Enforceable Through Title V Permit

- 19. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. [District Rule 2201] Federally Enforceable Through Title V Permit
- 20. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired. [District Rule 2201] Federally Enforceable Through Title V Permit
- 21. Permittee shall maintain records of the VOC content of vapor in the tank vapor control system, including date and test results. [District Rule 2201] Federally Enforceable Through Title V Permit
- 22. All records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2080]





## **AUTHORITY TO CONSTRUCT**

PERMIT NO: S-1703-209-0

**ISSUANCE DATE: 03/07/2012** 

LEGAL OWNER OR OPERATOR: MACPHERSON OIL COMPANY

MAILING ADDRESS:

PO BOX 5368

BAKERSFIELD, CA 93388

LOCATION:

HEAVY OIL CENTRAL STATIONARY SOURCE

CA

**EQUIPMENT DESCRIPTION:** 

6,200 BBL WASH TANK T-220 CONNECTED TO VAPOR RECOVERY SYSTEM LISTED ON '-144

## **CONDITIONS**

- The facility shall submit an application to modify the Title V permit in accordance with the timeframes and procedures of District Rule 2520. [District Rule 2520] Federally Enforceable Through Title V Permit
- Permit S-1703-150 shall be canceled upon implementation of this permit. [District Rule 2201] Federally Enforceable Through Title V Permit
- The tank shall be equipped with a vapor control system consisting of a closed vent system that collects all VOCs from the storage tank, and a VOC control device. [District Rule 2201] Federally Enforceable Through Title V Permit
- Maximum VOC content of vapor in the tank vapor control system shall not exceed 10% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
- VOC content of gas shall be measured using ASTM D-1945, EPA Method 18 referenced as methane, or equivalent test method with prior District approval. [District Rule 2201] Federally Enforceable Through Title V Permit
- This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623] Federally Enforceable Through Title V Permit

### CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

WARNER, Director of Permit Services

- 7. Operator shall conduct quarterly gas sampling after TVR compressor (prior to connection to any other vapor control system) and at either the first line tank or at any secondary tank which is heated above ambient temperature. If gas samples are less than 10% VOC by weight for 8 consecutive quarterly samplings, sampling frequency shall only be required annually and whenever there is a change in source or type of petroleum processed. Samples shall be collected during periods of normal operation, and not be within 48 hours after routine maintenance or repair. [District Rule 2201] Federally Enforceable Through Title V Permit
- 8. All vessel and vapor control system piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated to methane, to ensure compliance with the provisions of this permit. If any of the vessel components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no vessel components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 ft above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired upon detection. [District Rule 2201] Federally Enforceable Through Title V Permit
- 9. Upon detection of any leaking components (having a gas leak >10,000 ppmv, measured in accordance with EPA Method 21 by a portable hydrocarbon detection instrument that is calibrated with methane) operator shall: (a) Eliminate or minimize the leak within 8 hours after detection. (b) If the leak cannot be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; and eliminate the leak within 48 hours after detection. (c) In no event shall the total time to minimize and eliminate the leak exceed 56 hours after detection. [District Rule 2201] Federally Enforceable Through Title V Permit
- 10. If any of the tank components are found to be leaking, operator shall immediately affix a tag and maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rule 2201] Federally Enforceable Through Title V Permit
- 11. During a District inspection, any tank, gauge hatch, sampling device, or other component that is not leak free will not be a violation of this permit provided the facility records, tags, and repairs the leak in accordance with the requirements of this permit. [District Rule 2201] Federally Enforceable Through Title V Permit
- 12. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District Rule 4623] Federally Enforceable Through Title V Permit
- 13. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623] Federally Enforceable Through Title V Permit
- 14. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623] Federally Enforceable Through Title V Permit
- 15. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit
- 16. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623] Federally Enforceable Through Title V Permit
- 17. The permittee shall keep accurate records of each organic liquid stored in the tank including TVP and API gravity. [District Rule 4623] Federally Enforceable Through Title V Permit
- 18. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired. [District Rule 2201] Federally Enforceable Through Title V Permit

- 19. Permittee shall maintain records of the VOC content of vapor in the tank vapor control system, including date and test results. [District Rule 2201] Federally Enforceable Through Title V Permit
- 20. All records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2080]





## **AUTHORITY TO CONSTRUCT**

**PERMIT NO: S-1703-209-1** 

**ISSUANCE DATE: 02/21/2013** 

LEGAL OWNER OR OPERATOR: MACPHERSON OIL COMPANY

**MAILING ADDRESS:** 

PO BOX 5368

BAKERSFIELD, CA 93388

LOCATION:

HEAVY OIL CENTRAL STATIONARY SOURCE

CA

#### **EQUIPMENT DESCRIPTION:**

MODIFICATION OF 6,200 BBL WASH TANK T-220 CONNECTED TO VAPOR CONTROL SYSTEM LISTED ON '-144: ADD VOLUNTARY TANK CLEANING PROVISIONS CONDITIONS, AND ALLOW FOR THE VAPOR CONTROL SYSTEM TO BE DISABLED DURING VOLUNTARY POWER CURTAILMENT EVENTS

### CONDITIONS

- Permit S-1703-150 shall be canceled upon implementation of this permit. [District Rule 2201] Federally Enforceable Through Title V Permit
- This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2520] Federally Enforceable Through Title V Permit
- Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4 [District Rule 2520] Federally Enforceable Through Title V Permit
- The operator shall ensure that the vapor recovery system is functional and is operating as designed at all times with the exception of power curtailment events. [District Rule 2520] Federally Enforceable Through Title V Permit
- The tank shall be equipped with a vapor control system consisting of a closed vent system that collects all VOCs from the storage tank, and a VOC control device. [District Rule 2201] Federally Enforceable Through Title V Permit
- This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623] Federally Enforceable Through Title V Permit
- Maximum VOC content of vapor in the tank vapor control system shall not exceed 10% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

DAVID WARNER, Director of Permit Services

- 8. VOC content of gas shall be measured using ASTM D-1945, EPA Method 18 referenced as methane, or equivalent test method with prior District approval. [District Rule 2201] Federally Enforceable Through Title V Permit
- 9. Permittee shall notify the APCO in writing at least three (3) days prior to performing tank degassing and interior tank cleaning activities. Written notification shall include the following: 1) the Permit to Operate number and physical location of the tank being degassed, 2) the date and time that tank degassing and cleaning activities will begin, 3) the degassing method, as allowed in this permit, to be used, 4) the method to be used to clean the tank, including any solvents to be used, and 5) the method to be used to dispose of any removed sludge, including methods that will be used to control emissions from the receiving vessel and emissions during transport. [District Rule 2080] Federally Enforceable Through Title V Permit
- 10. This tank shall be degassed before commencing interior cleaning by following one of the following options: 1) exhausting VOCs contained in the tank vapor space to an APCO-approved vapor recovery system until the organic vapor concentration is 5,000 ppmv or less, or is 10 percent or less of the lower explosion limit (LEL), whichever is less, or 2) by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable liquid until 90 percent or more of the maximum operating level of the tank is filled. Suitable liquids are organic liquids having a TVP of less than 0.5 psia, water, clean produced water, or produced water derived from crude oil having a TVP less than 0.5 psia, or 3) by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable gas. Degassing shall continue until the operator has achieved a vapor displacement equivalent to at least 2.3 times the tank capacity. Suitable gases are air, nitrogen, carbon dioxide, or natural gas containing less than 10 percent VOC by weight. [District Rule 2080] Federally Enforceable Through Title V Permit
- 11. During tank degassing, the operator shall discharge or displace organic vapors contained in the tank vapor space to an APCO-approved vapor recovery system. [District Rule 2080] Federally Enforceable Through Title V Permit
- 12. To facilitate connection to an external APCO-approved recovery system, a suitable tank fitting, such as a manway, may be temporarily removed for a period of time not to exceed 1 hour. [District Rule 2080] Federally Enforceable Through Title V Permit
- 13. While performing tank cleaning activities, operators may only use the following cleaning agents: diesel, solvents with an initial boiling point of greater than 302 degrees F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams of VOC per liter or less. [District Rule 2080] Federally Enforceable Through Title V Permit
- 14. Steam cleaning shall only be allowed at locations where wastewater treatment facilities are limited, or during the months of December through March. [District Rule 2080] Federally Enforceable Through Title V Permit
- 15. Operator shall conduct quarterly gas sampling after TVR compressor (prior to connection to any other vapor control system) and at either the first line tank or at any secondary tank which is heated above ambient temperature. If gas samples are less than 10% VOC by weight for 8 consecutive quarterly samplings, sampling frequency shall only be required annually and whenever there is a change in source or type of petroleum processed. Samples shall be collected during periods of normal operation, and not be within 48 hours after routine maintenance or repair. [District Rule 2201] Federally Enforceable Through Title V Permit
- 16. All vessel and vapor control system piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated to methane, to ensure compliance with the provisions of this permit. If any of the vessel components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no vessel components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 ft above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired upon detection. [District Rule 2201] Federally Enforceable Through Title V Permit
- 17. Upon detection of any leaking components (having a gas leak >10,000 ppmv, measured in accordance with EPA Method 21 by a portable hydrocarbon detection instrument that is calibrated with methane) operator shall: (a) Eliminate or minimize the leak within 8 hours after detection. (b) If the leak cannot be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; and eliminate the leak within 48 hours after detection. (c) In no event shall the total time to minimize and eliminate the leak exceed 56 hours after detection. [District Rule 2201] Federally Enforceable Through Title V Permit

- 18. If any of the tank components are found to be leaking, operator shall immediately affix a tag and maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rule 2201] Federally Enforceable Through Title V Permit
- 19. During a District inspection, any tank, gauge hatch, sampling device, or other component that is not leak free will not be a violation of this permit provided the facility records, tags, and repairs the leak in accordance with the requirements of this permit. [District Rule 2201] Federally Enforceable Through Title V Permit
- 20. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District Rule 4623] Federally Enforceable Through Title V Permit
- 21. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623] Federally Enforceable Through Title V Permit
- 22. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623] Federally Enforceable Through Title V Permit
- 23. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit
- 24. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623] Federally Enforceable Through Title V Permit
- 25. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired. [District Rule 2201] Federally Enforceable Through Title V Permit
- 26. Permittee shall maintain records of the VOC content of vapor in the tank vapor control system, including date and test results. [District Rule 2201] Federally Enforceable Through Title V Permit
- 27. The permittee shall maintain a written log of the date and duration of each power curtailment event. [District Rule 2201] Federally Enforceable Through Title V Permit
- 28. The permittee shall keep written documentation from the power supplier indicating the date, and duration of the curtailment in addition to the beginning and end times. [District Rule 2201] Federally Enforceable Through Title V Permit
- 29. All records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

## ATTACHMENT C

**Emissions Increases** 

	SSIPE (lb/yr)				
	NOx	VOC	CO	SOx	PM10
S-1703-144-13	0	0	0	0	0
S-1703-209-0	0	0	0	0	0
S-1703-209-1	0	0	0	0	0
Total	0	0	0	0	0

## ATTACHMENT D

Application

## San Joaquin Valley Air Pollution Control District

www.valleyair.org

### MAY 0 3 2012

## Permit Application For:

SJVAPCD SIGNIFICANT MODIFICATION ☐ MINOR MODIFICATION ☐ ADMINISTRATIVE AMENDMENT

	S. (5.44)	
PERMIT TO BE ISSUED TO:     Macphers	son Oil Company	
2. MAILING ADDRESS:	, and the same of	
D O Pay 5269		
STREET/P.O. BOX: P. O. Box 5368		
CITY: Bakersfield	STATE: CA	9-DIGIT  ZIP CODE: 93388
3. LOCATION WHERE THE EQUIPMENT WII	LL BE OPERATED:	INSTALLATION DATE:
STREET: Round Mountain Unit	CITY:	
SE ½ SECTION 12 TOWNSHII	P 28S RANGE 28E	
4. GENERAL NATURE OF BUSINESS:		
Oil & Gas Production		
5. DESCRIPTION OF EQUIPMENT OR MODIF (include Permit #'s if known, and use additional)		S MADE
Modify Title V permit to implement the foll	lowing ATCs:	
C 1702 144 12 8 1200 0		
S-1703-144-13 & '209-0		
6. TYPE OR PRINT NAME OF APPLICANT:	TITLE OF APPLICANT:	
Jody Butler	Operations Superintendent	
7. SIGNATURE OF APPLICANT:	DATE:	
		` ′
	5/2/12	FAX: (661) 393-8065
1100		EMAIL: jody_butler@macphersonoil.com
For APCD Use Only:	no \$)	
DATE STAMP	FILING FEE  RECEIVED: \$	CHECK#:
		CHECK#.
	DATE PAID:	
	PROJECT NO: 5-1121423	FACILITY ID: 5-1703

Title V- Mmor Mod

# San Joaquin Valley Unified Air Pollution Control District

MAY 0 3 2012 Southern Region

### TITLE V MODIFICATION - COMPLIANCE CERTIFICATION FORM

I. TYP	PE OF PERMIT ACTION (Check appropriate box)
_	GNIFICANT PERMIT MODIFICATION ADMINISTRATIVE INOR PERMIT MODIFICATION AMENDMENT
COMPA	ANY NAME: Macpherson Oil Company FACILITY ID: S – 1703
1. Typ	pe of Organization: 🛛 Corporation 🗌 Sole Ownership 🔲 Government 🔲 Partnership 🔲 Utili
2. Ow	wner's Name:
3. Age	gent to the Owner:
E E E E E E E E E E E E E E E E E E E	MPLIANCE CERTIFICATION (Read each statement carefully and initial all circles for confirmation):  Based on information and belief formed after reasonable inquiry, the source identified in this application will continue to comply with the applicable federal requirement(s).  Based on information and belief formed after reasonable inquiry, the source identified in this application will comply with applicable federal requirement(s) that will become effective during the permit term, on a timely basis.  Corrected information will be provided to the District when I become aware that incorrect or incomplete information has been submitted.  Based on information and belief formed after reasonable inquiry, information and statements in the submitted application package, including all accompanying reports, and required certifications are true accurate and complete.
Signature of Jody Butler Name of Re	ander penalty of perjury under the laws of the state of California, that the forgoing is correct and true:
Implement	t ATC # S-1703-144-13 and S-1703-209-0 into the Title V Permit.



RECEIVED

MAY 0 3 2012

SJVAPCD Southern Region 5500 Ming Avenue Suite 360 Bakersfield, CA 93309-4693

Tel (661) 282-2200 Fax (661) 282-2204 insight@insenv.com

May 2, 2012

Mr. Dave Warner Director Permit Services San Joaquin Valley Air Pollution Control District 1990 E. Gettysburg Avenue Fresno, CA 93726-0244

re:

Application to Modify Title V Permit District Facility No. S-1703

Dear Mr. Warner:

Please find attached an application form and compliance certification form for a Title V modification of Macpherson Oil Company's (MOC) federal operating permit. MOC is required to implement Authorities to Construct S-1703-144-13 and S-1703-209-0 into their Title V permit pursuant to Condition #1.

This application submittal has been prepared by Insight Environmental Consultants at the request of MOC. If you have any questions regarding this project or need additional information, please contact Jody Butler of MOC at (661) 393-3204 extension 103 or myself at (661) 282-2200 or by e-mail at <a href="mailto:dwmccorm@insenv.com">dwmccorm@insenv.com</a>.

Sincerely,

Douglas W. McCormick, P.E.

Enclosures

cc: Jody Butler (w/ enclosure)

## ATTACHMENT E

Previous Title V Operating Permit

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-1703-144-15

**EXPIRATION DATE: 07/31/2016** 

SECTION: 18 TOWNSHIP: 28S RANGE: 29E

**EQUIPMENT DESCRIPTION:** 

2,000 BBL FIXED ROOF CRUDE OIL STORAGE TANK T-240 SERVED BY VAPOR CONTROL SYSTEM SHARED WITH S-1703-145, '-146, '-150, '-152, '-195, AND '-197 VENTING TO VAPOR CONTROL SYSTEM LISTED ON S-1703-143 AND/OR DIRECTLY TO STEAM GENERATORS S-1703-157, '-158, '-159, '-160, '-161, OR '-162 FOR INCINERATION:

### PERMIT UNIT REQUIREMENTS

- 1. The operator shall ensure that the vapor recovery system is functional and is operating as designed at all times with the exception of power curtailment events. [District Rule 2201] Federally Enforceable Through Title V Permit
- 2. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623] Federally Enforceable Through Title V Permit
- 3. Maximum VOC content of vapor in the tank vapor control system shall not exceed 10% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
- 4. The tank vapors may be introduced into TEOR system S-1703-143 at either the main trunk line, or immediately upstream of the H2S scrubber system. [District Rule 2201] Federally Enforceable Through Title V Permit
- 5. The tank shall be equipped with a vapor control system consisting of a closed vent system that collects all VOCs from the storage tank, and a VOC control device. The vapor control system shall be APCO-approved and maintained to prevent leaks. The vapors shall be incinerated to reduce the inlet VOC emissions by at least 99% by weight as determined by the test method specified in Section 6.4 of Rule 4623 in any of the following steam generators: S-1703-157, -158, -159, -160, -161, or -162; or vapors shall be injected into DOGGR approved wells listed on permit S-1703-143. [District Rule 2201] Federally Enforceable Through Title V Permit
- 6. Upon detection of any leaking components (having a gas leak >10,000 ppmv, measured in accordance with EPA Method 21 by a portable hydrocarbon detection instrument that is calibrated with methane) operator shall: (a) Eliminate or minimize the leak within 8 hours after detection. (b) If the leak cannot be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; and eliminate the leak within 48 hours after detection. (c) In no event shall the total time to minimize and eliminate the leak exceed 56 hours after detection. [District Rule 2201] Federally Enforceable Through Title V Permit
- 7. If any of the tank components are found to be leaking, operator shall immediately affix a tag and maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rule 2201] Federally Enforceable Through Title V Permit
- 8. During a District inspection, any tank, gauge hatch, sampling device, or other component that is not leak free will not be a violation of this permit provided the facility records, tags, and repairs the leak in accordance with the requirements of this permit. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.

Facility Name: MACPHERSON OIL COMPANY
Location: HEAVY OIL CENTRAL STATIONARY SOURCE,CA
S-1703-144-15 . May 10 2013 8:04AM -- DAVIDSOS

- All vessel and vapor control system piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated to methane, to ensure compliance with the provisions of this permit. If any of the vessel components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no vessel components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 ft above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired upon detection. [District Rule 2201] Federally Enforceable Through Title V Permit
- 10. Permittee shall notify the APCO in writing at least three (3) days prior to performing tank degassing and interior tank cleaning activities. Written notification shall include the following: 1) the Permit to Operate number and physical location of the tank being degassed, 2) the date and time that tank degassing and cleaning activities will begin, 3) the degassing method, as allowed in this permit, to be used, 4) the method to be used to clean the tank, including any solvents to be used, and 5) the method to be used to dispose of any removed sludge, including methods that will be used to control emissions from the receiving vessel and emissions during transport. [District Rule 2080] Federally Enforceable Through Title V Permit
- 11. This tank shall be degassed before commencing interior cleaning by following one of the following options: 1) exhausting VOCs contained in the tank vapor space to an APCO-approved vapor recovery system until the organic vapor concentration is 5,000 ppmv or less, or is 10 percent or less of the lower explosion limit (LEL), whichever is less, or 2) by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable liquid until 90 percent or more of the maximum operating level of the tank is filled. Suitable liquids are organic liquids having a TVP of less than 0.5 psia, water, clean produced water, or produced water derived from crude oil having a TVP less than 0.5 psia, or 3) by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable gas. Degassing shall continue until the operator has achieved a vapor displacement equivalent to at least 2.3 times the tank capacity. Suitable gases are air, nitrogen, carbon dioxide, or natural gas containing less than 10 percent VOC by weight. [District Rule 2080] Federally Enforceable Through Title V Permit
- 12. During tank degassing, the operator shall discharge or displace organic vapors contained in the tank vapor space to an APCO-approved vapor recovery system. [District Rule 2080] Federally Enforceable Through Title V Permit
- 13. To facilitate connection to an external APCO-approved recovery system, a suitable tank fitting, such as a manway, may be temporarily removed for a period of time not to exceed 1 hour. [District Rule 2080] Federally Enforceable Through Title V Permit
- 14. While performing tank cleaning activities, operators may only use the following cleaning agents: diesel, solvents with an initial boiling point of greater than 302 degrees F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams of VOC per liter or less. [District Rule 2080] Federally Enforceable Through Title V Permit
- 15. Steam cleaning shall only be allowed at locations where wastewater treatment facilities are limited, or during the months of December through March. [District Rule 2080] Federally Enforceable Through Title V Permit
- 16. Before disposal of VOC vapors by well injection, the applicant shall obtain written notification from DOGGR that the wells are approvable for injection. [District Rule 2201] Federally Enforceable Through Title V Permit
- 17. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District Rule 4623] Federally Enforceable Through Title V Permit
- 18. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 el "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623] Federally Enforceable Through Title V Permit

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- 19. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623] Federally Enforceable Through Title V Permit
- 20. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit
- 21. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623] Federally Enforceable Through Title V Permit
- 22. Operator shall conduct quarterly gas sampling after TVR compressor (prior to connection to any other vapor control system) and at either the first line tank or at any secondary tank which is heated above ambient temperature. If gas samples are less than 10% VOC by weight for 8 consecutive quarterly samplings, sampling frequency shall only be required annually and whenever there is a change in source or type of petroleum processed. Samples shall be collected during periods of normal operation, and not be within 48 hours after routine maintenance or repair. [District Rule 2201] Federally Enforceable Through Title V Permit
- 23. VOC content of gas shall be measured using ASTM D-1945, EPA Method 18 referenced as methane, or equivalent test method with prior District approval. [District Rule 2201] Federally Enforceable Through Title V Permit
- 24. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. [District Rule 2201] Federally Enforceable Through Title V Permit
- 25. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired. [District Rule 2201] Federally Enforceable Through Title V Permit
- 26. Permittee shall maintain records of the VOC content of vapor in the tank vapor control system, including date and test results. [District Rule 2201] Federally Enforceable Through Title V Permit
- 27. The permittee shall maintain a written log of the date and duration of each power curtailment event. [District Rule 2201] Federally Enforceable Through Title V Permit
- 28. The permittee shall keep written documentation from the power supplier indicating the date, and duration of the curtailment in addition to the beginning and end times. [District Rule 2201] Federally Enforceable Through Title V Permit
- 29. All records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit